

COMPANY NAME David Clark Company Incorporated		ENGINEERING STUDY <input checked="" type="checkbox"/> CHANGE PROPOSAL <input type="checkbox"/>		PROPOSAL NO. CDC-3					
DATE 7 January 1960		AFFECTS <input type="checkbox"/> WSPO <input type="checkbox"/> PROJECT <input checked="" type="checkbox"/>							
NAME OF MAJOR COMPONENT High Altitude Pressure Suit Assembly		PART OR LOWEST SUBASSEMBLY High Altitude Helmet		PART NO. & MODEL OR TYPE MA-2					
TITLE OF PROPOSAL: Development & Production of Helmet for Partial Pressure Suit									
NATURE OF PROPOSAL: See Attachment #1									
REASON FOR PROPOSAL: See Attachment #2									
ES	ESTIMATED COST AND TIME INVOLVED: ADDITIONAL FUNDING REQUIRED:								
CP	ESTIMATED COST FOR KITS OR PARTS: See Attachment #3 ADDITIONAL FUNDING REQUIRED: Original funding required.								
ITEMS AFFECTED BY PROPOSAL: Kit, oxygen survival-SPQ207,270,198									
Safety	Mission Effec- tiveness	Perform ance	Operating procedure	Inter- change- ability	Weight or wgt & balance	Tools & Mainte- support nance equip. Proced.	Servic Life	Flight Manual	Mainte- nance manual
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
EST. MAN/HRS. REQ'D TO ACCOMPLISH IN FIELD						2	6-2		
SOURCE OF PARTS FOR KIT David Clark Company Incorporated				AVAILABILITY _____ WEEKS AFTER APPROVAL See Attachment #3					
DISPOSITION OF SPARES AFFECTED Returned to Air Force Depot									
INITIATED BY: David Clark Company Inc.				APPROVED: WSPO Approved For Release 2003/12/04 : CIA-RDP81B00878R000400120004-6					

Attachment #1

Nature of Proposal

- a. Provide a replacement item for the Type MA-2 High Altitude Helmet without change of associated protective garments.
- b. Facepiece seal and locking pneumatic ring will be connected by non-kinking, non-collapsible, one-quarter inch hose to the upstream side of the seat pack oxygen inlet check valve. The sealing ring will operate at any pressure in range of forty five to one hundred p.s.i. Seal pressure hose will be routed immediately adjacent to present oxygen mask delivery hose.

Attachment #2

Reason for Proposal

- a. Helmet would provide an integrated facepiece which would enhance operational capability and safety by providing easy and positive opening and closing of the facepiece without detachment of this item.
- b. Helmet would provide an integrated sun shield and facepiece guard.
- c. Inner head harness is integral and supported by the hard shell and can be adjusted by the wearer during normal wear.
- d. Improved comfort to the wearer in the glottis area due to improved design of the neck seal skirt.
- e. Improved maintenance capability by eliminating critical facepiece seal required on bladder and cover assembly, or S-692 Cover and Bladder Assembly.
- f. Improved maintenance capability by eliminating potential helmet bladder puncture by helmet hold-down attachments.
- g. Improved inhalation and exhalation valve arrangement. New type exhalation valve provides opportunity for emergency control of exhalation valve if stuck open under pressure.

DAVID CLARK COMPANY
INCORPORATED

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Attachment #2

Reason for Proposal (continued)

- h. Improved windblast protection resulting from integral design of facepiece and helmet shell.

Attachment #3

a. Estimated Cost

Item One - Production Sample Helmet

25X1

Scope of Work

Modify current David Clark Company Model S-880 Helmet used with the A/P-22S-2 full pressure suit so that it will be compatible with the partial pressure suits utilized on the project.

Specific areas of modification are as follows:

- I. Modify helmet mold to delete neck bearing, and provide for attachment of neck seal skirt.
- II. Redesign the S-692 Helmet Bladder and Case Assembly neck seal skirt to adapt to the hard shell made from the mold in "I" above.
- III. Redesign the helmet suspension so that the face seal can be eliminated without affecting support and adjustability.
- IV. Provide for mounting the inspiratory and expiratory valves, hose connectors, electrical and communications leads.
- V. Provide conductive coated face plate for normal and emergency face plate heat.

Item Two - Thirty (30) to fifty (50) each Production Helmets

Unit Price \$

25X1

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Attachment #3

b. Estimated Delivery

Item One - Sixty (60) days from date of authorization to proceed with ECP.

Item Two - First ten (10) helmets sixty (60) days from date of authorization to proceed with Item Two.

Additional twenty (20) helmets sixty (60) days from date of delivery of first ten (10).

Additional twenty (20) helmets thirty days from date of delivery of above quantity of twenty (20).

25X1

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